CWDM7511P3N

SURFACE MOUNT SILICON N-CHANNEL ENHANCEMENT-MODE MOSFET

SOIC-8 CASE

Central Semiconductor

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CWDM7511P3N is a high current silicon N-Channel enhancement-mode MOSFET designed for high speed pulsed amplifier and driver applications. This energy efficient MOSFET offers beneficially low $r_{DS(ON)}$, and low threshold voltage.

MARKING CODE: 11P3N

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Drain-Source Voltage	V_{DS}	75	V
Gate-Source Voltage	V_{GS}	20	V
Continuous Drain Current	I_D	8.3	A
Continuous Drain Current (T_A=10°C, T_J=25°C)	I_D	11.3	A
Operating and Storage Junction Temperature	T_J, T_{stg}	-55 to +150	°C
Power Dissipation	P_D	2.5	W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	**TEST CONDITIONS**	**MIN**	**TYP**	**MAX**	**UNITS**
I_{GSSF}, I_{GSSR}	V_{GS}=20V, V_{DS}=0			100	nA
I_{DSS}	V_{DS}=60V, V_{GS}=0			1.0	μA
BV_{DSS}	V_{GS}=0, I_D=250μA	75			V
$V_{GS(th)}$	V_{GS}=V_{DS}, I_D=250μA	2.0	2.7	4.1	V
V_{SD}	V_{GS}=0, I_S=1.0A			1.6	V
$r_{DS(ON)}$	V_{GS}=10V, I_D=1.0A		18	22	mΩ
C_{iss}	V_{DS}=75V, V_{GS}=0		3.0		nF
C_{oss}	V_{DS}=75V, V_{GS}=0		0.13		nF
C_{rss}	V_{DS}=75V, V_{GS}=0		0.04		nF
$t_{d(on)}$	V_{DS}=75V, V_{GS}=10V, R_{DL}=75Ω		7.7		ns
t_r	V_{DS}=75V, V_{GS}=10V, R_{DL}=75Ω		4.5		ns
$t_{d(off)}$	V_{DS}=75V, V_{GS}=10V, R_{DL}=75Ω		31.5		ns
t_f	V_{DS}=75V, V_{GS}=10V, R_{DL}=75Ω		47.3		ns

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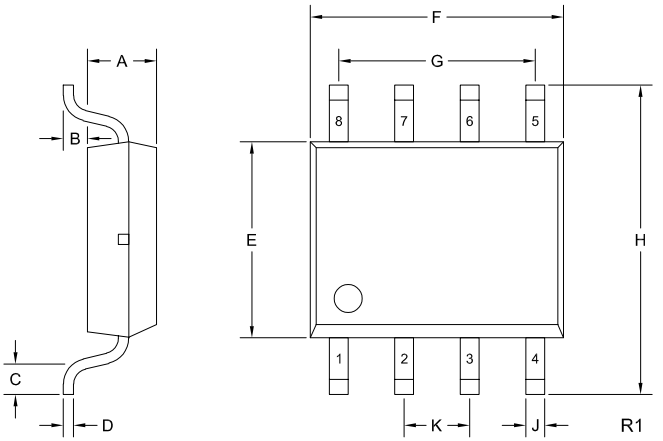
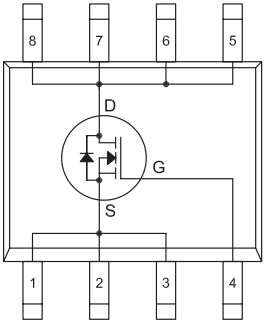
SOIC-8 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.055	0.061	1.392	1.554
B	0.004	0.009	0.100	0.224
C	0.016	0.035	0.40	0.90
D	0.007	0.010	0.19	0.25
E	0.145	0.157	3.80	4.00
F	0.189	0.198	4.80	5.00
G	0.150		3.81	
H	0.228	0.244	5.80	6.20
J	0.013	0.020	0.33	0.51
K	0.050		1.27	

SOIC-8 (REV: R1)

PIN CONFIGURATION



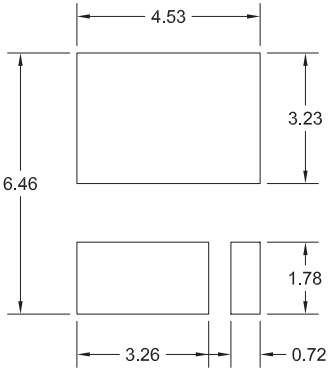
LEAD CODE:

1) Source
2) Source
3) Source
4) Gate
5) Drain
6) Drain
7) Drain
8) Drain

MARKING CODE: 11P3N

SUGGESTED MOUNTING PADS

(Dimensions in mm)



R0

R2 (4-December 2023)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES

PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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